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USSR Report

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USSR REPORT

Economic Affairs

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INVESTMENT, PRICES, BUDGET AND FINANCE

UNRESTRICTED ENTERPRISE FINANCING QUESTIONED

Tashkent EKONOMIKA I ZHIZN' in Russian No 4, Apr 85 pp 9-11

[Article by I. Shanchenko, lecturer at the Tashkent Institute of the National Economy, under the rubric: "Rubric of the Financier": "Are We Too Liberal in the Extension of Credit?"]

[Text] With the development of our country's economy, the credit relations of enterprises with the bank are expanding and the bank is investing more in the national economy. Thus, in the period 1971 through 1983, short-term Gosbank credits to industry alone almost doubled. An increase in bank credits is a natural process under the conditions of the increase in the scale of production. In this connection, however, one must ensure the correct relationship between the rate of this increase and production indicators. There is practical evidence that the increase in the volume of credit investments significantly exceeds the growth in basic production and operational indicators. During the first 2 years of the current five-year plan, the volume of industrial production in the republic grew by 10 percent, and short-term Gosbank credit investments in this sector increased by 17 percent. Overall, short-term bank credits to the republic's national economy increased by 46.6 percent from 1980 through 1982 at the same time that national income increased by 8 percent, industrial output by 10 percent, and agricultural output by 0.9 percent. That is, the "yield" of each credit ruble is tending to decline noticeably. As a result, the relative share of credits in the sources of working capital for the republic's economy increased from 53.8 percent in 1975 to 60.2 percent in 1980 and to 67.8 percent in 1982.

Many enterprises, associations and sometimes entire sectors are becoming "dependents" of the state and are basically operating through state loans, but one must not forget that the resources for the extension of credit appear in the form of the bank's temporary accumulation of the available funds of other enterprises and organizations, the population, the budget, etc. A delay in the repayment of finances borrowed from the bank is nothing other than putting to use above-plan resources, which in principle is inadmissible in a socialist economy. Overdue bank loans have a negative impact on the circulation of money, lead to a shortage

of on-hand finances, and force Gosbank into an above-standard emission of banknotes.

Debts to the bank in 1982 alone amounted to more than 15 percent of the total sum of working capital. The entrenched habit of some managers of living on credit leads to the loss of the feeling of responsibility for the results of their work as well as for the strengthening of cost accounting, the observance of the economy campaign, and the implementation of the accumulation plans. Therefore, one of the pressing problems in this stage is the determination of the most valid relationship between an enterprise's own working capital and bank credit. In this connection, it is very important to complete at last the determination of valid standards of working capital for individual enterprises and associations, as was established by the party and government decree "On Improving the Planning and Strengthening the Impact of the Economic Mechanism on Raising the Effectiveness of Production and the Quality of Work."

As has already been said, our situation with respect to the timely repayment of Gosbank credits is very unfavorable. It is enough to say that over the past years of the current five-year plan alone the overdue indebtedness of enterprises has increased by a factor of 2.4, which was the result of serious shortcomings in the economic and financial work of individual sectors as well as many associations and enterprises. Among these main shortcomings are the nonfulfillment of production and financial plans, the "eating away" of own working capital, its immobilization in various unplanned objectives, and the formation of above-standard commodity stocks.

In recent years, the structure of Gosbank credit investments has not been especially favorable. Thus, whereas at the beginning of 1976 more than 80 percent of loans were for commodity stocks, at the start of 1984 these accounted for only two-thirds of all credits allocated for replenishing working capital. There was a significant increase in so-called payments credits, which are to be granted to enterprises when they temporarily lack funds primarily for the payment of supplier invoices and wages (in the 10th Five-Year Plan, the sum of payment loans increased by a factor of almost 3.4 and reached more than 9 percent of all short-term bank credits. In the 11th Five-Year Plan, to be sure, they declined noticeably, but their absolute and relative magnitudes are still great).

One cannot fail to be alert to the fact that there is a continual increase in credits not directly related to the material provision of production, which include indebtedness deferred for various reasons, credits for the temporary supplementing of a shortage in own working capital, the redistribution of funds, and overdue loans. During the years 1976 through 1983, there was a doubling of the relative share of credits not directly related to material security.

During the years of the current five-year plan, deferred unsecured debts to Gosbank more than tripled and credits for the temporary supplementing of an enterprise's own working capital increased by a factor of 6.4. In these cases, short-term credit loses its purpose and becomes a source for covering all sorts of shortcomings and violations in the economic and financial activity of debtors.

How can such phenomena be prevented? It seems that it has now become essential to improve the practice of extending credit. For example, when stably functioning enterprises encounter a temporary need for additional funds, they certainly ought to be granted loan aid operationally. But if the bank is approached by clients that are not providing for the fulfillment of plans for production, deliveries, accumulation and other basic technical and economic indicators, then it is expedient to limit the issuance of credits to them. Payment credits should be allocated only when economic bodies encounter truly temporary financial difficulties and for the standard periods for the turnover of working capital. There is no justification to advance savings or to extend credit for the "eating away" of an enterprise's own working capital or the covering of expected losses and other fundamentally anomalous requirements. Expenditures of this type should be covered through own resources, reserves actually on hand, and profit.

For the purpose of raising the responsibility of labor collectives for the results of their own economic and financial activity, it appears appropriate to exact higher interest rates for a delay in paying off a debt caused by various types of violations of planning discipline and to do this not from the profit obtained by the economic body but through the economic-incentive funds.

In the system of the finance and credit mechanism, a very important role is assigned to the organization of clearing operations, the major part of which takes place through Gosbank institutions. Continuity and accuracy in such operations give evidence of the stable financial position of enterprises, the proper fulfillment of obligations to partners in the sale of output (services) in accordance with contracts and schedule orders entered into, the timely receipt of funds by suppliers, and the establishment of the conditions for the implementation of bank control and mutual control by subcontractors. And this progressive form of operations should be expanded continuously and parallel to the improvement of the entire system of planning and economic management, which is generally being done. In this connection, however, there are still more than enough shortcomings and questions that are still unresolved, which is evidenced by the summary data on debtor-creditor debt in the republic's economy. At the end of 1983, it amounted to 7.5 percent of all working capital in industry and 9.6 percent of working capital in agriculture. One of the main reasons for this unfavorable balance is that many enterprises and associations are violating payments discipline. As a result of this, debts to suppliers and the budget are increasing.

Nonpayment comes about for the same reasons as overdue bank credits, reasons that include the nonfulfillment of accumulation plans, the shortage of own working capital, the lack of planned sources of financing, the tying up of working capital in above-standard stocks of physical assets, unforeseen expenditures for the construction of unplanned facilities, etc.

It is impossible to resolve this problem without a resolute strengthening of accounting discipline. Unfortunately, it is still far from the required level. It is sufficient to say that in connection with the violating of agreements and delivery conditions by enterprises and economic organizations, there are more and more refusals to accept invoices presented to the bank by suppliers. For the first 3 years of the current five-year plan, their number increased by a factor of almost 1.5. The recipients declare many refusals to pay in connection with the fact that suppliers present to the bank invoices for items that were not ordered or that have already been paid for and for poor-quality, incomplete or lower-grade output. Suppliers also demand payment for goods not received and there are other violations.

Of course, the unconditional fulfillment of quantitative and qualitative plan indicators and contract obligations, the elimination of violations of financial discipline, and the observance of the norms of economic rights in interrelationships with administrative authorities and financial and credit systems are basic conditions for the stability of the finances of cost-accounting enterprises and organizations and therefore a guarantee of timely charges and payments. But one should not forget that in this matter the role of incentives may not be insignificant. It is thought that the existing system of economic incentives ought to have been made dependent upon the observance of accounting and payment discipline. If the system of providing incentives to workers needs to be oriented toward final operational results, including the results of financial activity, then, in encouraging administrative staff workers, why not take into consideration overdue payments to suppliers, the budget, and the bank?

It is likewise expedient to expand the practice of the provisional acceptance of supplier invoices by purchasers. This would also aid in increasing the responsibility of suppliers for the fulfillment of contract obligations, conditions of delivery, and the rules for drawing up accounts. In addition, it is essential to practice more actively the payment for output only after it has been accepted as conforming to quality specifications.

In our view, one should also raise the stimulating role of payment for funds. And, in its calculation, one should consider creditor debts and the sum of funds withdrawn to various sorts of debtor debt. As is known, enterprises make payments only for fixed capital and standardized working capital. We suppose that their interest in the timeliness of settling accounts would rise significantly if resources at their disposal were more fully covered by payment for funds.

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CSO: 1820/201

INVESTMENT, PRICES, BUDGET AND FINANCE

IMPACT OF PRICE, OTHER LEVERS ON EQUIPMENT UTILIZATION VIEWED

Moscow PLANOVOYE KHOZYAYSTVO in Russian No 4, Apr 85 pp 102-106

/Article by V. Zhitkov: "Effect of Financial Levers and Prices on the Efficient Use of Equipment"*/

/Text/ In the decisions handed down during the 26th CPSU Congress and subsequent plenums of the CPSU Central Committee and in decrees of the CPSU Central Committee and the USSR Council of Ministers, the task was assigned of achieving further improvements in the economic mechanism, while taking into account the requirements of the objective economic laws which function in a mature socialist society. In this regard, it is necessary first of all to examine and analyze the effect of the economic levers and stimuli from the standpoint of the influence they exert on the interest of enterprises in improving the use of equipment.

During the December (1983) Plenum of the CPSU Central Committee, emphasis was placed upon the fact that tremendous reserves for raising production efficiency and labor productivity are to be found in an increase in the coefficient of shift operations. At the same time, some enterprises are not devoting sufficient attention to improving the use of their machine pool. For example, during the 1980-1982 period the machine pool at the Kharkov Tractor Plant was increased by 9 percent, while the coefficient for shift operations fell from 1.5 to 1.41. This was explained by a shortage of labor resources and a need for more equipment, not to mention the equipment workload.

One reason for this situation lies in the fact that an enterprise is reimbursed by means of wholesale prices for the cost of the machines and equipment held on the enterprise's balance and as a rule it is guaranteed not only complete reimbursement for the expenses incurred for equipment maintenance and the formation of the amortization fund placed at its disposal but also the right to obtain profit. In the process, the higher the balance value of the equipment, the greater will be the amortization fund and the amount of profit realized by the enterprise. Thus the maintenance of unused and idle equipment turns out to be profitable, since an enterprise receives additional financial resources for each unit of their value.

During the production process, the value of expended means of labor is transferred over to the finished product in the form of amortization deductions, which are included in the planned production cost for the product and in the

* As a matter for discussion.

wholesale price through the calculation item entitled "Expenses for the Maintenance and Operation of Equipment." The essence of any of the accepted methods for applying the total amount of expenditures for the maintenance and operation of equipment to the production cost for a unit of output amounts to a more accurate distribution of the overall amount of these expenditures, without taking into account the method for its formation in a plan or report.

The total amount of expenses for the maintenance and operation of equipment, included in the planned production cost for a unit of output, is determined in the form of the product of the planned production cost for one coefficient-machine-hour multiplied by the number of coefficient-machine-hours required for the production of a specific type of product. For its part, the planned production cost for one coefficient-machine-hour is established by dividing the total amount of expenses for the maintenance and operation of equipment by the overall number of coefficient-machine-hours required for carrying out the program*.

Amortization deductions constitute a considerable portion of the planned expenses for equipment maintenance and operation. Thus a need exists for examining the system employed for planning such deductions. The volume of amortization deductions for the year being planned is determined by multiplying the average annual value of the funds by the appropriate norms for amortization deductions, based upon correction factors which reveal the actual equipment operating conditions**.

The average annual value includes the cost of the equipment held on the balance of an enterprise, with consideration being given to the placing in operation and withdrawal of fixed productive capital during the year being planned. Thus, in calculating this amount, only the equipment installed at an enterprise is taken into account.

The norms for amortization deductions are differentiated depending upon the use of the equipment in mass, large series, series or individual production. A low correction factor is also employed for equipment used at enterprises not included in the structure of the machine building or metal working branches. Such differentiation of the amortization norms makes it possible to reveal to a certain degree the differences in the intensity of equipment workloads, but it does not reflect the production-technical conditions of individual enterprises. Thus correction factors are introduced simultaneously for the norms for amortization deductions, for the repair of machines and equipment, depending upon the shift system for their operation. However, they are characterized by a considerable degree of averaging out.

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* "Metodicheskiye materialy po planirovaniyu, uchetu i kal'kulirovaniyu sebestoimosti produktsii na predpriyatiyakh mashinostroyeniya i metalloobrabotki" /Methodical Materials for Planning, Accounting and Calculating Production Costs at Machine Building and Metal Working Enterprises/. Moscow, Preyskurantizdat, 1975, pp 41-42

** "Statute on the System for Planning, Computing and Using Amortization Deductions in the National Economy." Moscow, EKONOMIKA, 1974, p 123.

First of all, since these coefficients are established only for the norms for amortization deductions for capital repair work, a substantial reduction takes place in their stimulating effect and it is impossible to obtain an accurate determination of the value of the expended portion of means of production to be transferred over to the finished product. The correction factors only supplement the differentiation of the amortization norms for the production types, since such differentiation is general in nature and provides approximate data on the transferred value of the socially required labor expenditures and the actual expenditures borne at the specific enterprises.

Secondly, the range for the coefficient of equipment shift operations, used for determining the correction factor for the amortization deduction norms for capital repair work (less than 1.4; 1.4-2.4 and more than 2.4), is large. Hence, two enterprises having coefficients for shift operations of 0.8 and 1.39 are in the same situation with regard to determining the planned amount of amortization deductions subject to inclusion (through the expenses for equipment maintenance and operation) in the draft wholesale price.

If the reduction in the coefficient for shift operations at the Kharkov Tractor Plant from 1.5 to 1.41 is examined from this standpoint, then it is obvious that such a situation could not be reflected in the amount of amortization deductions left at the disposal of the enterprise. The actual production cost may increase owing to an increase in the proportion of amortization deductions in the production cost for a unit of output. However the newly agreed upon wholesale prices not only provide full reimbursement for this increase in expenditures, but in addition they serve to ensure that normative profit will be realized.

In the statute dealing with the system for planning, computing and utilizing amortization deductions in the national economy, the principle for computing the coefficient of shift operations is not revealed and it is upon this factor that the total amount of amortization deductions reimbursed to an enterprise through wholesale prices will be dependent.

In actual practice, the amortization deductions for insufficiently used equipment are a concealed form of income for a production enterprise or branch, which for the most part remains at the disposal of the enterprise and is not associated with an improvement in the quality of its operations.

But this is only one aspect of the problem. Another equally important aspect is the system for the formation of profit in the wholesale price. When determining the profit proportional to the complete production cost for an item and deducting the direct material expenditures, the profitability norm is established for the amount of expenditures included in the amortization deductions. Thus the greater the proportion of amortization deductions in the wholesale price structure, the greater will be the normative amount of profit. Hence an enterprise systematically obtains profit by means of the equipment listed on its balance.

Thus an enterprise avoids economic sanctions by including the amortization deductions from insufficiently used equipment in the wholesale prices. The insufficient use of fixed productive capital leads to losses in a portion of the national income. In addition, the obsolescence of equipment does not end

during the given period and data on its actual wear and tear and residual value is distorted.

Further improvement is required in the method employed for determining the production capability of an enterprise. In conformity with existing statutes, an enterprise can establish the capability for leading production elements while not taking into account a definite portion of the equipment*. This also makes it possible for it to fulfill and overfulfill its production plans in the presence of insufficiently used equipment. Hence, shortcomings in the method employed for planning production capabilities promote the creation of insufficiently used equipment at an enterprise, while the system for the formation of wholesale prices and for planning amortization deductions creates stimuli for the maintenance of surplus equipment. Thus in 1979 there were 53 machine operators for every 100 machines in machine building and metal working. Even at enterprises of the machine building ministries, the coefficient of shift operations for metal cutting machines amounts to an average of only 1.39 and for the metal working ministries, where several million machines are concentrated -- 0.8-1.2**. Such a supply of equipment does not burden an enterprise, since it is not included in a consideration of the planned tasks.

At the same time, the existing system of payments for productive capital is not sufficiently effective, as borne out in the works of a number of Soviet economists***. In addition, a portion of the payments for this capital, and in some instances the entire amount, collected on the basis of idle equipment, can be covered by means of profit computed from the total amount of amortization deductions for equipment. The degree of such coverage is directly dependent upon the normative level for profitability and the amount of the amortization norm. Under conditions involving use of the normative for profitability, computed on the basis of production cost less direct material expenditures, the importance of this factor has increased.

If the amount of payment for production capital is compared not only against the amount of profit obtained from idle equipment but also against the entire amount of financial resources left at the disposal of an enterprise (branch), including amortization deductions, then their interest in maintaining surplus equipment rises substantially (even taking into account the distribution of the total amount of amortization deductions in a definite proportion between an

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* "Standard Method for Developing the Technical Industrial Financial Plan for a Production Association (Combine) or Enterprise." Moscow, EKONOMIKA, 1979, p 26; "Principal Statutes for Computing the Production Capabilities of Operating Enterprises and Production Associations (Combines)," Point 5 (approved on 8 December 1983 by USSR Gosplan and USSR Central Statistical Administration).

** A.G. Zelinskiy, N.V. Ivanov. "Problems of Idle Machines." EKONOMIKA i ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA, 1983, No 2, PP 78, 82.

*** See: V.A. Medvedev. "Upravleniye sotsialisticheskim proizvodstvom: problemy teorii i praktiki" /Administration of Socialist Production: Theoretical and Practical Problems/. Moscow Politizdat, 1983, p 62; Ye.T. Gaydar, V.I. Koshkin. "Cost Accounting and the Development of Economic Independence for an Enterprise." Moscow, EKONOMIKA, 1984, p 31; V.K. Sitnin, Yu.V. Yakovets. "Economic Mechanism for Raising Production Efficiency." Moscow, EKONOMIKA, 1978, pp 73-74.

enterprise and the branch), since the amortization norms for machines and equipment as a rule exceed the normative for payments for productive capital. It is our opinion that such a comparison is proper, since the interest of an enterprise is not limited only to a distribution of newly created value.

One of the most important principles of cost accounting is a comparison of the expenditures and operational results of enterprises. In the process, they are evaluated in terms of value amounts, computed on the basis of wholesale prices. Thus a cost evaluation of the results, on the basis of which an enterprise is reimbursed for its expenditures, is also dependent upon the conformity of the wholesale price to the socially required labor expenditures.

A determination of the cost results of production, based upon actual expenditures, can lead to a situation wherein the total amount of expenditures (including non-productive expenses) will be included in the cost evaluative indicators for production. This can disrupt a comparison of expenditures and results, create the appearance of such a comparison for production profitability and, in the final analysis, negate the effect on production of cost accounting and prices.

The socially needed labor expenditures are based upon socially required working time. If individual working time defines the actual labor productivity required for the production of consumer values, then socially needed labor expenditures appear as a level of expenditures which is based upon the level of productive forces, social division of labor, production concentration and so forth.

K. Marx wrote: "The value of an article is determined not by the amount of time required to produce it, but rather by the minimum amount of time required to produce it"*. This postulate of Marxist-Leninist theory applies fully to the value of the fixed productive capital included in the cost of a finished product. The value of an item of goods is determined not only by the amount of live labor expended for its production, but also by past labor materialized in the means of production, which is included in the value of a finished product in the form of amortization deductions.

The process of a gradual transfer of the cost of the fixed capital expended during the production process over to the finished product is regulated by the law of values. Therefore, the total amount of amortization deductions reimbursed through wholesale prices to an enterprise must also be applied to the category of socially required expenditures.

An enterprise must not be reimbursed for that portion of expenditures associated with unproductive expenses and losses for which it was responsible. If the idle and insufficiently used equipment is examined from this standpoint, then it is obvious that the expenditures for its maintenance cannot be classified as socially required expenditures and an enterprise must not be reimbursed for them.

Compensation for expenditures which exceeds the economically sound level tends to lower the interest of an enterprise in reducing these expenditures. In the

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* K. Marx and F. Engels. Works, Vol. 4, p 99.

case of amortization deductions which in the final analysis remain at the disposal of an enterprise or branch, complete compensation for them for equipment not used or used partially in the production process not only lowers such interest but also encourages an enterprise to maintain surplus equipment.

In order to interest an enterprise in maintaining only a machine pool which, based upon the technical-economic computations, is required in terms of size for carrying out a production program, it is obvious that it should not be reimbursed for the amortization deductions and expenditures associated with the maintenance of surplus equipment. If nonetheless the amortization deductions for all of the equipment, including idle and insufficiently used items of equipment are included in the wholesale prices, the sums obtained in this manner must be withdrawn. In such a case the enterprise will be required to cover such expenditures by means of profits and this will lower the interest in maintaining an excessively large machine pool.

Let us examine a possible variant for the computation and withdrawal of such sums. It is prompted by the very principle involved in the formation of amortization deduction norms for capital repairs, depending upon the shift operation of equipment.

Indeed, K. Marx noted that "a machine which is used 16 hours daily over a period of seven and a half years provides service for the same production period and adds the same value to the total product as does a machine which is used for 8 hours daily over a period of 15 years. But in the first instance the cost of the machine was reproduced twice as rapidly as in the second instance and a capitalist in the first instance will absorb, with the aid of this machine, as much surplus labor in seven and a half years as in the second instance -- in 15 years"*.

The relationship mentioned by K. Marx with regard to the amount of value transferred over to a product during the period a machine is in use may serve as the basis for the computation. If an enterprise is reimbursed only for that cost of a machine or item of equipment which, based upon the production conditions, must be included in the value of the finished product, then it is obvious that the difference between this value and the total amount of amortization deductions embodied in the wholesale price must be withdrawn. A determination of the latter should not pose any special difficulty. The computation of the former can be carried out after differentiating the amortization deduction norms both for complete restoration and for capital repairs, proportional to the coefficient for shift operation of the equipment. Towards this end, the amortization deductions for equipment used with a normative coefficient of shift operation, for the particular group of equipment, must be computed in the full amount, in conformity with the norm and in the case of insufficiently used equipment -- in a reduced amount and according to a lowered norm (proportional to the amount of deviation in the actual coefficient of shift operation from the normative coefficient of shift operation for the given group of equipment).

As a result of the use of the mentioned method, resources obtained earlier by an enterprise as a result of its mismanagement and the availability of

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* K. Marx and F. Engels. Works, Vol. 23, p 415.

surplus amounts of insufficiently used items of equipment are redistributed and centralized.

The normative amount of profit obtained by means of amortization deductions from insufficiently used equipment must be withdrawn simultaneously. It can be computed as the product of the surplus amounts of amortization and the profitability norm for production costs, less direct material expenditures. The withdrawal of surplus amounts of amortization and profit must be carried out using the profit placed at the disposal of the enterprise, for example, in the form of an additional increase in the payment into the production funds.

The actual carrying out of the plan for production volume (with no reduction in the plan tasks) and other mutually associated indicators can be corrected based upon the computed amounts of the overstatement. In this instance and for the purpose of carrying out the plan, an enterprise will be interested in maintaining an excessive machine pool.

In our opinion, a change should ideally be carried out in the system for computing the coefficient for the shift operation of equipment. A determination of this coefficient based upon the amount of machine-shift operation of equipment precludes the possibility of describing the level of its use properly, as pointed out in the works of a number of Soviet economists*.

At the same time, another system for computing this indicator, one which can be used for the particular computation under discussion, has been recommended in the Standard Method for Developing a Technical Industrial Financial Plan.

The degree of economic influence exerted on an enterprise in this instance will be determined by the level of the normative coefficient for shift operations and the difference between the normative and actual level of equipment usage. Included among the advantages of the proposed method is the possibility of carrying out a gradual increase in the normative coefficient of shift operations, on the basis of which the amortization deductions for inclusion in the wholesale prices will be computed. Such an approach makes it possible to control the difference between the total amounts of amortization deductions embodied in the draft wholesale prices and the actual ones computed and subject to be added to the budgetary income and to achieve a gradual improvement in the use of fixed productive capital, in keeping with the existing norms for amortization and wholesale prices.

The use of this method does not require additional expenditures for its introduction, since as a rule all of the data required for the computation is available at the enterprise. Under conditions involving the use of computer equipment, this method will not result in a considerable increase in accounting work.

According to statistical data, the amortization deductions for the total amount of expenditures for the production of machine building and metal working products amount to 7 percent and the proportion of machines and equipment in

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* See: V.K. Senchagov and V.V. Ostapenko. "Improvements in Use of Equipment." EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA, 1983, No 10, p 10.

the fixed productive capital -- 47.9 percent*. If the difference between the normative and actual coefficient of equipment shift operations is 30 percent, the profitability norm for production cost less direct material expenditures is 30 percent and the profitability norm for complete production cost is 16 percent, then the enterprise loses approximately one third of its value during the formation of the amortization fund for machines and equipment and the total amount of the excess amount of amortization will reach 1 percent of the production cost ($0.07 \cdot 0.477 \cdot 0.3 = 0.01$). The total amount of the increase will equal 1.12 percent $\frac{0.01(1 + 0.3)\ 100}{1.16}$ of the wholesale price and hence the 1.12 percent will not be taken into account in fulfillment of the plan for commodity output volume. With the withdrawal from the enterprise of the overstated amounts, the profit decreases by 8.13 percent $\frac{0.01\ (1 - 0.3)\ 100}{0.16}$

The proposed method, despite a certain degree of conditionality attached to such a computation, will in our opinion exert a noticeable effect on the economic irterest of an enterprise and will conform to the conditions expressed by K. Marx regarding the labor theory of value.

If an enterprise operates under strict economic limits and through a system of norms for the effective use of the means of labor, then the enterprise itself will be interested in developing a system of accounting which will make it possible to improve the use of its machine pool.

A solution for the problem concerned with raising the stimulating effect of economic levers and stimuli for improving the use of fixed productive capital will make it possible to increase substantially the production of goods and to reduce production expenditures.

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CSO: 1820/194

* "National Economy of the USSR in 1982." Moscow, FINANSY I STATISTIKA, 1983, pp 132, 139.

RESOURCE UTILIZATION AND SUPPLY

PACKING MATERIAL SHORTAGES STILL PLAGUE SUPPLY

Moscow MATERIAL'NO-TEKHNICHESKOYE SNABZHENIYE in Russian No 5, May 85 pp 17-21

[Article by A. Pavlov, chief of a combined subdepartment, USSR Gosplan: "Packing Materials for Transportation Purposes: Production Reserves and the Self-Interestedness of the Manufacturer"]

[Text] In our everyday life we constantly use many articles and objects. We become so accustomed to them that we do not even think about them until, for some reason or other, they are not immediately to hand. Almost everyone, for example, has a self-interest in purchasing packaged food products and reliably packed consumer goods. In a word, packing materials are becoming, more and more persistently, part of our everyday life, in the same way that transport, telephone, and stores are. And these are the service branches, which are called the infrastructure. Its share in the fixed assets of the national economy constitutes more than 50 percent. Therefore there is complete justification for devoting to it today more careful attention than used to be the case.

One of the considerable parts of the infrastructure is packing and packaging materials, and their production and application. "Whatever the social form of the reserve of products, its preservation requires costs: the costs of structures, of packing, etc., for the storage of the product; it requires, in the same way, depending on the nature of the product, more or less labor and means of production which must be expended to prevent any detrimental influences" (Marks [Marx], F., Engel's [Engels], F., "Soch." [Works], 2nd ed., Vol 24, p 164).

Packing and packaging materials, while not giving the output any new consumer properties, increase its cost. Therefore the attitude that is sometimes taken to them is that they are an undesirable phenomenon. However, in most instances packing and packaging materials are simply indispensable. For example, canned goods, milk, granulated sugar, flour, vegetables, fruits, and other products cannot be delivered to the customers excepted in packaged form.

Consequently, the packaging, including packing materials for transportation purposes and for the consumer's benefit, has been called upon the guarantee the intactness of the output to be shipped, to protect it against damage or losses, and to protect the environment against pollution. But inasmuch as

every manufacturer feels that his chief task is to produce the planned output and, by any allowable means, so long as it involves the least fuss, ship it to the customer, the proper attention is frequently not devoted to questions of packaging. It is only the production managers who truly are technically literate and who have an excellent mastery of economic knowledge who constant engage in the optimizing of packaging. And this is not accidental, because, in order to obtain additional profit in the basic production with technological processes that have been well established, it is necessary to invest considerable amounts of money. But the return on every invested ruble for the development of the packing and packaging management is quickly and tangibly felt.

For the time being, however, our country's national economy is incurring large losses. Because of the poor packaging, there are large losses of cement, mineral fertilizers, fruits, vegetables, fish, meat, oil, and other vitally important foodstuffs. In addition, it becomes necessary to purchase, by way of import, various types of packing materials, especially paper and polymer sacks. The existing production capacities remain unloaded because of the lack of the necessary quantity of sack paper. All this makes it necessary to increase the production of that paper at enterprises of USSR Minlesbumprom [Ministry of the Timber, Pulp and Paper, and Wood Processing Industry].

But if one speaks about expenditures for packing as a whole, the daily expenditure for its manufacture is approximately 6 billion rubles, more than 25 million cubic meters of fresh wood, almost 1,800 million square meters of corrugated cardboard, approximately 100,000 tons of polymers, and more than 700,000 tons of metal. Those figures speak for themselves. If one looks at them more carefully, the basic expenditures are linked with the production of wooden packing which is cumbersome and labor-intensive in manufacture, and is expensive and relatively ineffective.

Thus, on the one hand, the packing is necessary, inasmuch as it guarantees the intactness of the output, but, on the other hand, it causes undesirable overhead expenses that increase the production costs. Therefore it is necessary to determine the optimal volume of its production. It is also necessary to consider the fact that the plan for the production of output, as a rule, is not only fulfilled, but is also overfulfilled. Consequently, it is necessary to have a certain reserve of packing. Therefore the development of its production must somewhat outstrip the development of industrial and agricultural production.

As is well known, the determination of the national economy's need for packing has been made the responsibility of USSR Gossnab. In order to make the correct determination of that optimal value that we have mentioned, it is necessary first of all to know the volume of output of production that will have to be packed, and to know the periodically renewed nationwide and branch standards for the expenditure of timber materials and cardboard packing materials, which are developed by the All-Union Scientific-Research and

Experimental-Design Institute of Packing and Packaging (VNIEKITU), of USSR Gossnab.

Inasmuch as practically all types of transportation-type packing materials are interchangeable, it is also important to determine the optimal structure of packing by types of its production. This requires the knowledgfe of the properties of the output to be packed, the protective capabilities of various types of packing, the methods of delivering the output, and the mechanical effects that are exerted during the transportation and loading-and-unloading operations. VNIEKITU engages in the development and study of these questions. That is why it is important to involve that institute in determining the scientifically substantiated need of the national economy for transportation-type packing. As for the prospects for the development of the packing-materials management, it is necessary here to have the close interaction between USSR Gossnab and USSR Gosplan.

When planning, it is a completely natural thing to attempt first of all to develop the production of economical types of packing. The technical policy in this area, the development of assignments for the creation of new equipment, has also been made the responsibility of USSR Gossnab. The decisions of its Interdepartmental Council on the Packing-Materials Management are mandatory for all ministries and departments. However, it must be noted that this substantial coordinating agency has not yet received its proper confirmation. This is the only way that one can explain the existing lag in the area of the designing of packing materials and the equipment to manufacture them.

The existing units are relatively unproductive and do not make it possible to organize the production of progressive and economic types of packing. Minkhimmash [Ministry of Chemical and Petroleum Machine Building], in essence, is only beginning to assimilate highly effective corrugation units which, on the basis of their design parameters, correspond to the highest worldwide standards. But the equipment for the processing of corrugated and solid glued cardboard into boxes, which equipment is supposed to be produced by Minlegpishchemash [Ministry of Machine Building for Light and Food Industry and Household Appliances], and which has not yet been assimilated into series production, is already obsolete. Automatic thermoplastic units for the manufacture of polymer packing materials, which units are produced by Minstankoprom [Ministry of the Machine Tool and Tool Building Industry], are so imperfect that it takes from one and a half to two years to assimilate each of them.

It is well known that, as yet, our country does not have a specialized packing-materials branch. Therefore the consumer branches themselves are obliged to engage in the development of the packing-materials management. And this is being done, it must be said, not very eagerly. And this is completely understandable, because, for the time being, capital investments are not being allocated as a separate line to every ministry for developing the production of transportation-type packing materials. It is completely natural that the ministry or department channels its funds first of all into the development of the basic production. Inasmuch as there is not always a sufficient amount of funds being allocated, there are usually no funds remaining for the financing

of the packing-materials management. And if it is necessary to organize the production of packing materials to support some other ministry or department, the question about the allocation of funds for those purposes is even more difficult to resolve.

That is precisely the explanation for the unsatisfactory state of the technological equipment for the manufacture of packing materials. This has a detrimental effect upon the production of transportation-type packing materials, especially cardboard materials. The situation is not being corrected. Over a period of recent years the assignments for the production of cardboard and other economical types of packing have not been fulfilled.

There have been rather frequent instances when a ministry or department, having failed to cope with the plan for the production of packing materials needed for its own consumption, has requested USSR Gossnab to make an additional allocation of those materials at the expense of other manufacturers, or has requested USSR Gosplan to make purchases by way of import, substantiating the need for these materials by the possible disruption of the plan for the production of output, as occurred at Minkhimprom [Ministry of the Chemical Industry] in 1983, which ministry, incidentally, has not been using the considerable capacities for the production of polyethylene sacks. When this protectionist approach is taken to the job at hand, one can scarcely expect that the packing-materials problems will ever be resolved.

Or take another situation. In order to guarantee the intactness of sets of kitchenware or individual objects, USSR Minchermet [Ministry of Ferrous Metallurgy] needs boxes made of corrugated cardboard. Inasmuch as foodstuffs themselves are provided with only 70 percent of their needs for this kind of packing materials, there naturally is not enough corrugated cardboard to provide for the packing of enamelware. If an economical attitude were taken to the situation, USSR Minchermet could create the necessary production capacities for producing cardboard boxes needed for packing the consumer goods. But, unfortunately, this is not being done. As a result the enterprises in that ministry annually incur hundreds of thousands of rubles of losses resulting from the damages to the kitchenware during the transportation and loading-and-unloading operations. Who, then, is going to worry about the needs of USSR Minchermet? The people in the food industry? The chemists? The construction workers? Since there is no specialized packing-materials branch, no one wants to engage in packing the output of USSR Minchermet. With a consideration of this fact, the manufacturers, obviously, will have to continue for a long period of time in sending off their sets of pretty enameled pots and pans by tying them together with string and packing wood shavings around them when they are being loaded into railroad cars.

But there are also other examples. USSR Minpishcheprom [Ministry of the Food Industry], USSR Minplodoovoshchkhoz [Ministry of the Fruit and Vegetable Industry], USSR Minmyasomolprom [Ministry of the Meat and Dairy Industry], and USSR Minstroymaterialov [Ministry of the Construction Materials Industry], by engaging in the production of packing materials for transportation purposes, provide for their own needs and and also deliver some of those materials to other ministries.

For purposes of eliminating the lag in the development of the packing-materials management, improving the guaranteeing of the needs of the national economy for packing materials for transportation purposes, reducing the losses of manufactured and agricultural output during transportation and storage, and reducing the expenditure of materials and labor expenditures for the manufacture of packing materials, a number of measures have been undertaken. It has been planned to increase considerably the production of economical types of packing -- cardboard and polymer. That would make it possible to improve considerably the providing of the national economy with packing materials for transportation needs.

Unfortunately, efforts to achieve the planned volumes have been unsuccessful. A number of ministries, primarily USSR Minlesbumprom, have failed to allocate the necessary funds for the development of the production capacities for the manufacture of packing materials. As a result, the planned capacities have not been activated, and the situation with regard to the providing of the needs of the national economy for packing materials, practically speaking, has not improved. And as a consequence of this there have been large losses of output as a result of poor packing or of the complete lack of it.

In order to improve the packing-materials situation, it is important within the shortest periods of time to complete the program planned for 1982-1985 for developing the production of economical types of packing materials, concentrating the basic attention n increasing the production of cardboard boxes. It is precisely cardboard boxes that possess a number of desirable features: low cost, low weight of their own, compactness, and sufficient strength properties to guarantee the intactness of most of the types of output. In addition, there already exist highly productive technological processes for the manufacture of packing materials that are suitable for the automatic packaging of output and for reuse.

The effectiveness of the production of cardboard packing materials is also confirmed by the following data. One ton of corrugated cardboard replaces almost 16 cubic meters of wood. There is also a reduction in the production and consumption of the expensive wooden packing materials that are labor-intensive in manufacture.

In addition, the production of cardboard packing materials can be increased chiefly by creating new capacities and the partial modernization of the existing ones, and the accelerated production and assimilation of highly productive equipment. In the 12th Five-Year Plan it is necessary to manufacture more than 60 corrugation units for the manufacture of corrugated cardboard. If we are successful in activating and completely assimilating these capacities, within the near future we shall assure an increase of 1500 million square meters of corrugated cardboard. In additional, the existing equipment pool will also be considerably renewed.

The tasks that have been advanced are completely feasible. It is important for the ministries that are responsible for their fulfillment to show more initiative and to strive more persistently for positive results.

Nor can one fail to consider such a situation as the availability of raw and other materials. Whereas today there is a sufficient quantity of packing cardboard for the flat layers of paper, as well as paper for corrugation, which are needed for the manufacture of corrugated cardboard, in a few years these resources may prove to be insufficient. Therefore it is necessary to be concerned ahead of time about increasing those resources.

Thus, if we may summarize what has been said, we might note that the packing-materials problem can be resolved only by developing the production of cardboard packing materials. This is the first and basic direction in the resolution of the problem.

But there is another, no less important direction. It is the increase in the production of multiple-reuse polymer packing materials. Boxes, trays, and barrels successfully replace the traditional multiple-reuse wooden and metal packing materials. The advantages of polymer packing materials lie not only in this face. Their production is completely automated. They are irreplaceable when organizing trade through department stores. While possessing an attractive outward appearance, polymer packing materials can easily be washed and cleaned of any contamination, stack reliably, are low in weight, and have high mechanical strength. Polymer boxes for bottles containing liquids for food purposes make it possible to employ automatic equipment for packing the bottles in them; this is completely precluded when wooden boxes are so used.

Polymer packing materials that are no longer useable can be used as a secondary raw material for manufacturing new boxes. In conformity with GOST 17358-80, "Boxes, Polymer, Multiple-Use, for Bottles Containing Liquids for Food Purposes: Specifications," it is possible to add as much as 20 percent of secondary polymers to the production of polymer packing materials. For a number of types of packing materials, the percentage of additives of secondary polymers can be increased to 50. This is a substantial addition to the existing resources of polymers.

The basic type of raw materials for polymer packing materials is high-density polyethylene. It is also possible to use polypropylene and shockproof polystyrene.

At the present time the development of the production of polymer packing materials for transportation needs is proceeding at rapid rates. Whereas three years ago its volumes came to 3-3.5 million pieces, by the end of the current five-year plan they will increase to 20 million. A substantial increase is expected by the end of the 12th Five-Year Plan. Having 60-65 million boxes made of polymers will make it possible to save 2 million cubic meters of timber.

Something that continues to be a bottleneck in developing the production of polymer packing materials is the incomplete provision with molds. Last year Minstankoprom began their series manufacture. But the quantity being produced does not satisfy the need for them.

The reduction of the expenditures for the production of packing materials for transportation purposes will be served by the broad introduction of nonpackaged shipments of output by specialized railroad and motor transport, by containers and box-type pallets, and also by the delivery to self-service stores of output that has been packaged in packing-equipment. All the mentioned methods of delivering output to the consumer will make it possible right now to reduce by 10-12 percent the need for packing materials for transportation. In addition, there are reductions of labor expenditures for the loading-and-unloading operations, and reductions in the spoilage and losses of the output being shipped. And the opportunities for their further application are far from being exhausted.

The development of unpackaged shipments depends primarily upon the desire and the state of agreement between the manufacturers of the output and the consumer enterprises, with the active cooperation of USSR Gossnab, which is responsible for providing enterprises with containers and pallets.

Despite the definite positive shifts that have occurred in increasing the production of economical types of packing materials, packing materials that continue to represent a considerable share (more than 50 percent) in the overall volume of consumption are wooden packing materials, which are heavy, cumbersome, labor-intensive in manufacture, and expensive. One sees the effect here, primarily, of such factors as the accessibility of the material, the large reserves of wood in the country, and the possibility of manufacturing boxes either manually under the most primitive conditions, or with the aid of means of automation. In addition, wooden packing materials possess high strength properties, are suitable for reuse and salvaging, and can be destroyed easily and with no harmful consequences.

All this makes wooden packing materials, for the time being, irreplaceable, especially for packing machinery and equipment, easily bruised fruits and vegetables, various pickled products, and other kinds of different output. With a consideration of this fact, in the 12th Five-Year Plan the share of wooden packing material in the overall volume of production will continue to be considerable (approximately 40 percent). Moreover, the expenditure of timber materials for the production of packing materials and the packaging of manufactured output will not increase, but, possibly, will be considerably reduced. In other words, the complete crowding out of wooden packing materials by other types is precluded. This process will be a prolonged one. Consequently, the attitude that one should take to the production of wooden packing materials is not that one is dealing with a transitory phenomenon, or one that is dying out.

Taking into consideration the labor-intensity of manufacture and the low quality of the finished packing materials that are produced manually, it is very important to continue the scientific-research and construction-and-design projects involving the construction of improved designs for wooden packing

materials, new technological schemes for manufacturing them, and mechanized highly productive lines, both for the manufacture of packing boards boxes with minimal waste of wood, and for making boxes out of them. That will make it possible to use more completely and more effectively the wood that is allocated for the production of wooden packing materials, to reduce the manual labor, and improve the quality of the packing materials.

An important role in guaranteeing the needs of the national economy for packing materials for transportation purposes is played by their reuse. The share of returnable packing materials in the overall volume of consumption is more than 40 percent. In the next five-year period there will also be the possibility for a certain increase in the volumes of the reuse of cardboard and wooden packing materials. As the production of wooden packing materials and the processing of cardboard packing materials into waste paper decrease, these volumes will subsequently begin to decrease.

As is well known, Soyuzglavtara [Main Administration for Packing Materials] under USSR Gossnab has been called upon to engage in organizing the collection, repair, and reuse of packing materials. Functioning in its system are approximately 600 packing-materials repair enterprises and timber-trade bases. A large number of the packing-materials repair enterprises are modern enterprises that are equipped with specialized and one-of-a-kind equipment, and with means of mechanization.

Many of them carry out not only the repair of returnable packing materials,but also the manufacture of new ones, chiefly wooden boxes and cardboard inserts. For this purpose they have at their disposal the necessary production capacities, equipment, and various flow lines. For example, at the Baldaray enterprise, a line has been installed for the production of box-type pallets made of five-layer corrugated cardboard; at the Kaluga enterprise, a line for the manufacture of packet-pallets for shipment of new glassware; at the Digora enterprise, a corrugation unit for the production of corrugated cardboard and boxes. At the present time it is a cardboard packing materials factory.

The facts attest that many packing-materials enterprise already have excess capacities today. Life itself suggests ways to use them. It would be desirable to think a bit about expanding the functions of the enterprises and gradually building up the production capacities for the purpose of manufacturing new transportation packing materials of all types, including polymer types, in addition to the development of their production at enterprises of the leading ministries that are responsible for the production of progressive types of packing.

When speaking about the development of packing-materials production, one cannot fail to dwell upon such an important question as the cadres in packing-materials production, because without skilled specialists no technical progress is possible. At the present time not a single institution of higher learning in our country trains economists, technologists, or organizers specializing in packing-materials production. I might note that in the 1930's the Institute of the National Economy did train such specialists. Inasmuch as the technical policy in the development of the production of packing materials in our country has been made the responsibility of USSR Gossnab, it must

resolve, jointly with USSR Ministry of Higher and Secondary Education, this question that is so important for the national economy.

Despite our country's lack of a specialized packing-materials branch and despite the insufficient rates of development of packing-materials production, packing materials must not become a hindrance in the development of the national economy. The problem definitely will receive its proper resolution. It is necessary for the ministries and departments that are responsible for the development of packing-materials production, with the active participation of the consumers, to understand the entire importance and necessity of resolving the problem and for them to show the proper persistence and begin to resolve it.

5075
CSO: 1820/198

COMPUTER TECHNOLOGY APPLICATION PROJECTED TO YEAR 2000

Moscow EKONOMICHESKAYA GAZETA in Russian No 15, Apr 85 p 2

[Unsigned article under rubric "Technical-Economic Review": "Horizons of Computerization"; passages enclosed in slantlines printed in boldface]

[Text] In January 1985, the Politburo of the CPSU Central Committee considered, and on the whole approved, a draft of a national program for the development, expansion of production, and effective utilization of computer technology and automated systems up to the year 2000.

The overall purpose of the program is to raise the efficiency of the economy through accelerated scientific and technical progress, in the first place in machine building and electronics, and to ensure a leading position in this sphere, the further growth of the Soviet people's wellbeing, and higher labor productivity through integrated automation and extensive use of computer and microprocessor technologies.

The question is of an integrated systems approach to the automation of social production. Up until the latter 70s, this work was mainly associated with the introduction of automated organizational-economic management systems. By 1982, approximately 3,500 such systems had been developed and introduced at major plants.

During the 10th and 11th 5-year plans, there was extensive development of automated production control systems, with 2,960 introduced by 1982. However, the development of automated management systems and automated production control systems was not always coordinated. Interaction among them was occasionally lacking, thereby reducing their effectiveness.

This situation can be changed radically only through more effective computerization, and this can be achieved only by the comprehensive automation of branches of the economy based on mass production and application of computer and microprocessor technologies as the most effective accelerators of scientific and technical progress. It should also be noted that comprehensive automation based on computer and microprocessor technologies makes it possible to significantly increase equipment productivity and the quality of output, even when retaining traditional technologies in such industries as iron and steel (metal rolling), textiles, garments, food, and machine building. The most significant effects of the introduction of automated systems are the

elimination of manual labor, reduction of personnel, and substantial savings of primary and raw materials, fuel, and energy.

/In conditions of comprehensive automation based on computer and microprocessor technologies, production acquires new quality indicators unattainable by conventional methods./

Nowadays the dominant trend in the machine-building industry is already not mass production of a small range of products, but the manufacture of a large and constantly changing range of goods. One of the effects of this is that the machine-building plants themselves are becoming capable of quickly reacting to changing economic demands for their products.

Thus, one of the main new trends in integrated automation is the development, production, and extensive introduction of automated systems for controlling machine tools and other machinery, installations, manufacturing equipment, and processes. The importance of implementing these measures is underscored by the fact that currently some 70-75 percent of the costs of industrial output are related to production indicators.

The automation of manufacturing equipment and processes in various branches of the economy is inseparably linked with the automation of planning, design, prospecting, research and development. The latter's importance is underscored by the great effectiveness of automated design systems and systems for the technological preparation of production. It has been shown that they can more than halve the time of design work and preparation of design documentation while at the same time achieving better technical and economic specifications of designed items. The application of automated systems for the technological preperation of production can yield 20-35-fold savings in labor. They make possible rapid retooling and readjustment of processes, which is decisive in flexible, wide-ranging production.

/Automated design and technological preparation systems are most effective at plants developed for flexible automated production./

At such plants automated design and technological preparation systems should be directly combined with automated systems for controlling equipment and processes. They should ensure timely preparation of documentation for new production and related technological readjustment. Such integration of systems requires hardware and software interaction and coordination on the basis of computer networks and the establishment of common databanks of standard specifications and design and technological documentation which can be accessed and used by all groups of personnel engaged in designing and manufacturing. Only the integration of different automated systems at flexible automated production facilities can create all the necessary conditions for attaining high efficiency indicators on the scale of introduction indicated by the program of work in the development of flexible automated production facilities and their use in the economy.

At the same time, development will continue of automated R&D systems aimed at increasing productivity in R&D and testing organizations and sections, reducing the time needed for fundamental theoretical and applied research, and

at accelerating the development of prototypes of systems utilizing fundamentally new materials, effects, and processes. Automated R&D systems are designed to provide automated design systems with mathematical models and information about new facilities and processes best suited for automating design work.

An important sphere of comprehensive automation of the economy is the development, modernization and use of automated organizational and economic management systems for plants, organizations, associations, departments, and branches of industry. Automated management systems must be introduced in both traditional industries, construction and transport, and in agrarian-industrial complexes and the nonproduction sphere.

As before, the task is to establish a national automated system for collecting, processing and storing information for purposes of running the national economy. The program reveals the essence of this system. The national automated system will not be a superstructure over existing administrative and managerial agencies but a mechanism capable of coordinating the operation of computer systems of branch and departmental automated systems and plant management systems in tackling planning and management tasks. Hence the importance of consistently resolving the problems of developing the technical base for a national automated system: a state network of computer centers and a nationwide data transmission system.

/The development and upgrading of automated management systems should be aimed at important qualitative changes influenced by two important factors: introduction of "paperless" data technology and integration of automated systems./

The concept of data technology is associated with the installation of automated management hardware and software at the workplaces of managerial office personnel, made possible by achievements in the development of microprocessor techniques and the appearance of so-called personal computers. Equipped with simple and convenient language capabilities and sophisticated input-output systems, personal computers employing available problem-oriented sets of programs can easily and quickly be adjusted to the range of data problems for nonprogrammer users, giving them the capability of posing and resolving automated management problems at their desks. If the resources of a personal computer are inadequate it can be connected through a local computer network with a central computer complex where the user gains access to data set archives and data banks.

The wide scale of introduction of integrated automation already raises the problem of teaching, training and advanced training of personnel in a variety of jobs who use computers and microprocessors in their daily work. Moreover, with the development of different types of automated systems the number of workers having the knowledge and experience of using and operating such systems will constantly increase. From this follows the need of expeditiously expanding work aimed at developing and using automated teaching systems and training and laboratory facilities at all levels of the educational system, from primary school to institutes of higher education and retraining and advanced training courses.

A decision recently adopted by the CPSU Central Committee and the USSR Council of Ministers provides for the introduction in the new academic year of a course in "Principles of Information Science and Computer Technology" in all secondary schools, and for conducting a wide-ranging experiment in the use of computers for teaching school subjects. In particular, it is planned to organize computer study rooms in schools and provide instructional software and methodological guides.

/The functional capabilities of most automatic and automated management systems and systems of scientific and engineering computations developed and operating in our country are not inferior to the best world achievements./

In many cases this has been achieved by developing optimal algorithms, duplicating, multi-computer operation, and integration of other hardware.

Take, for example, automated design systems. Without them it would be impossible to develop products with high technical and economic indicators. An example of a mass industrial product are asynchronous electric motors. They consume 40 percent of all the electricity generated in the Soviet Union, and more than eight million are built every year. New series of asynchronous motors developed with the help of automated design systems and currently in production have higher efficiency and power ratings, yielding savings of 150 million kilowatt-hours of electricity per year. The consumption of copper and electrical-sheet steel in the manufacture of these motors has also been reduced.

Such high gains are a result of many years' efforts aimed at developing and using automated design systems in the electrical engineering industry. The leading organization is the Electromechanics Scientific Research Institute (director Academician N. N. Sheremet'yevskiy) which, with the support of the leadership of the Ministry of the Electrical Equipment Industry, achieved a high level of development and application of automated design systems in the industry. The Leningrad Elektrosila Production Association imeni Kirov has also achieved high results in the use of automated design systems. It has developed such a system for large electrical machines which during the initial stages of its use already made it possible to increase industrial output by 20 percent, save an average 6 percent in materials, and effect savings of some 40 million kilowatt-hours of electric power.

Unfortunately, here is an example of another kind. At the beginning of 1984, the Rostsel'mash Farm Machinery Association was tasked with setting up an automated design system within a program of the State Committee for Science and Technology, with the commissioning date set in 1986. On assignment of the State Committee for Science and Technology, a special committee headed by Academician K. V. Frolov recently analyzed the work being done and came to the conclusion that matters were lagging far behind schedule.

Questions of effective use of computer and microprocessor systems are especially important now, at a time of active preparations for the 12th 5-Year Plan. A number of problems arise in this connection.

Improvements are needed in comprehensive servicing of computers wherever they are used. At present the Ministry of the Radio Industry provides servicing of up to 40 percent, and the Ministry of Instrument Making, Automation Equipment, and Control Systems less than 12 percent, of the computer hardware produced by them. The Ministry of the Electronics Industry has no maintenance services at all. Massive introduction of computers and microprocessor systems must be accompanied by reductions in their cost, which is very important, for example, for the application of microprocessors in domestic appliances and for solving the problem of universal computer literacy.

Insofar as at present the system of planning indicators includes the share of machinery, equipment, and instruments automated with the help of microprocessor technology, experts consider that it would also be useful to introduce indicators reflecting the level (share) of planning and design work and technological preparation of production due to the introduction of automated design systems and the proportion of optimization problems solved in automated plant, association, and branch management systems. This would target ministries and departments on the application of computers in the most difficult, but also the most needed and effective fields.

In current conditions the development of automation and computerization has become the basis and prime mover of scientific and technical progress, and it has a direct impact on the solution of scientific and production problems. Much has already been done, but the main achievements lie ahead.

9681
CSO: 1820/180

LEGAL MEASURES TO PROTECT ECOLOGY OF FAR NORTH ENACTED

Moscow KHOZYAYSTVO I PRAVO in Russian No 4, Apr 85 pp 65-66

[Article by A. Zaslavskaya, candidate of juridical sciences, under the rubric What's New in Legislation": "The Protection of Nature in the Far North"]

[Text] On 28 November 1984 the second session of the Supreme Soviet USSR approved the ukase of the Presidium of the Supreme Soviet USSR dated 26 November 1984 on "Improving the Protection of Nature in Areas of the Far North and in Offshore Areas Adjacent to the Northern Coast of the USSR." *

The press has called attention to the worldwide trend during the last two or three decades of growth in the pace of developing and settling northern territories, which for various reasons has been going on in all regions. These regions vary in the preconditions for and the level of their contemporary development and in their prehistory. But the main thing is that industry and population are moving to the North on a scale and at a pace never before seen. **

The ever-growing attention to the protection of nature in the Far North has come about because the North has now become an area of accelerated economic development. The basic prerequisite for this has been the growth in demand for the mineral resources, and especially fuel and energy resources, in which these areas are rich.

Where the North previously involved the romantic and the beautiful, it has now acquired great governmental importance. It is hard to imagine our country's economy without the oil and gas of Western Siberia, the diamonds of Yakutsk, the apatite of Kola, the non-ferrous metals of Norilsk, the gold of Magadan, northern furs and fish, or the forest resources of the tayga.

But these resources can be enjoyed only with great care. We know that the natural systems of the North are very fragile and unstable, and renew themselves slowly and with difficulty. It is relatively easy here to damage the vegeta-

* "Vedomosti Verkhovnogo Soveta SSSR" /Proceedings of the Supreme Soviet USSR/, 1984, No. 48, p. 856. Followed by the ukase.

** Cf. G. A. Agranat, "Sever: novyye problemy i vozmozhnosti (ratsional'noye ispol'zovaniye resursov)" /The North: New Problems and Opportunities (The Rational Use of Resources)/, Moscow, Znaniye, 1984, p. 9.

tion and soil cover and difficult to restore them.

It is also necessary to consider the needs of the people living in these regions, whose traditional occupations are reindeer herding, fishing, hunting, and trapping marine animals.

The adoption of this ukase is one sign of the government's constant concern to conserve nature in the North, in order to satisfy overall government requirements for mineral resources and fuel, as well as the living conditions and the traditional occupations of the citizens living there.

The ukase puts under its protection the entire natural system — the earth and its resources, bodies of water, the air, the flora and the fauna. The methods of protection are highly diverse. They include the establishment of preserves, sanctuaries, and other specially protected territories (including offshore areas). Where necessary, guarded zones are set up in them.

Procedures for setting up specially protected territories in designated areas are established by the USSR Council of Ministers.

Specific new requirements have been introduced to support the system of preserves and other specially protected territories and their guarded zones. For example, within the boundaries of the offshore areas of preserves, sanctuaries and other specially protected territories and their guarded zones, ships and other vessels are permitted to sail only in sea lanes defined by the appropriate Soviet agencies. Other means of transport may travel over the surface of ice only on established paths. Ships and other means of transport may enter the boundaries of the offshore areas of preserves, sanctuaries or other protected zones or pass through these areas outside the sea lanes or paths to ensure the safety of people or ships, or in other cases defined by the laws of the USSR.

Aircraft at low altitudes may not overfly preserves, sanctuaries, other specially protected territories, areas where animals habitually congregate, or their migratory routes.

Other protective methods are the requirements governing the sailing of ships and other vessels, flights by aircraft, and the operation of surface means of transportation. Special rules have been drawn up for the sailing of ships and other vessels in offshore areas adjacent to the northern coast of the USSR, where the very severe climatic conditions and the presence of ice create obstacles or an increased threat to navigation, and where pollution of the marine environment could inflict serious damage on the ecological equilibrium or irreversibly destroy it.

Much harm can be done during the construction and operation of enterprises and in the performance of geological and other studies. In such cases there may occur harmful discharges into the air, pollution of bodies of water, and injury to the soil and vegetation cover. Among protective methods the ukase therefore provides for the formulation of special rules for the design, construction and operation of enterprises, buildings, installations and other

technical facilities, and for the performance of geological prospecting, scientific research and other studies.

The construction (or reconstruction) in areas of the Far North and in the offshore areas adjacent to the northern coast of the USSR of enterprises or other facilities, the creation, operation and use of any artificial islands or various installations and facilities in the sea, the location and development of inhabited places, and the running of power lines are permissible upon an ecologically founded and favorable finding by the agencies responsible for the official monitoring of environmental protection and the rational use of natural resources.

Exploration, geological prospecting, mining, construction and other operations in areas of the Far North and in offshore areas adjacent to the northern coast of the USSR must be carried out by methods ensuring the minimum or negative impact from these operations on the natural environment.

Installations, buildings, equipment, machinery, structures, means of transportation, and materials used on land for those operations must be located only within the sectors or zones designated for those purposes.

It is forbidden to utilize mechanical transport that could disrupt soil and vegetation cover to cross tundra or forest-tundra beyond the limits of the roads or other trails specially designated by established procedures. The technical-specification documentation for buildings, installations, machinery, mechanical devices, equipment, means of transport and materials intended for use in areas of the Far North or the offshore areas adjacent to the northern coast of the USSR, as well as the performance of construction, geological prospecting and other operations in these areas must be worked out with regard for the requirements of environmental protection in these areas and the need to take steps to restore renewable natural resources.

The ukase provides for the adoption of stricter requirements to protect the earth and its resources, bodies of water, the air, and the flora and fauna, to restrict tourism, and to carry out other steps for environmental protection.

Aspects of environmental protection in areas of the Far North and the offshore areas adjacent to the northern coast of the USSR not provided for in this standard-setting act are governed by legislation of the USSR and the RSFSR on environmental protection, and by legislation of the USSR on the economic zone of the USSR and the continental shelf of the USSR.

Supplemental acts will be published to amplify the ukase.

12697
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GENERAL

CURRENT, PROJECTED STANDARDIZATION MEASURES DESCRIBED

Moscow STANDARTY I KACHESTVO in Russian No 3, Mar 85 pp 3-6

/Article: "Organization of Work on Standardization in the USSR"/

/Text/ In connection with the decree dated 23 March 1978 of the CPSU Central Committee, the Presidium of the USSR Supreme Soviet and the USSR Council of Ministers "Problems Concerning the Compilation of USSR Laws" for the purpose of refining the organization of work on standardization and strengthening its role in an acceleration of scientific and technical progress, increase in the efficiency of public production and improvement in the quality of output on 7 January 1985 the USSR Council of Ministers adopted the decree "On the Organization of Work on Standardization in the USSR."

Since the decree is of the nature of codification, it takes into consideration and generalizes all the previously adopted legislation envisaged by the decisions of the USSR Government beginning in 1943 concerning the organization and procedure of performance of work on standardization, whose normative provisions have retained their importance at present and have prospects for further application.

The decree "On the Organization of Work on Standardization in the USSR" also contains a number of new requirements taking into consideration the decree dated 18 August 1983 of the CPSU Central Committee and the USSR Council of Ministers "On Measures for Acceleration of Scientific and Technical Progress in the National Economy" primarily connected with ensuring in the very near future the development and output of products corresponding in their indicators to the highest world level or surpassing it on the basis of the most important indicators of the technical level and quality of products incorporated in standards.

The decree determines the main directions in the improvement in the organization of work on standardization in the USSR on the basis of the decisions of the 26th CPSU Congress and subsequent plenums of the CPSU Central Committee, as well as the decrees of the CPSU Central Committee and the USSR Council of Ministers determining the policy of an all-around intensification of the national economy, acceleration of scientific and technical progress, growth of labor productivity, maximum saving of material and labor resources and on this basis ensuring a steady rise in the country's economy and in the well-being of the Soviet people.

The decree determines that the establishment of a system of normative-technical documents determining advanced requirements for products produced for the needs of the national economy, the population, the country's defense and export and for their development, production and application, as well as control over the correct use of these documents, is the main task of standardization in the USSR.

Such a definition of the main task of standardization directs all economic sectors toward the maximum utilization of its capabilities for the attainment of the highest final national economic results. In this connection it has been established that, first of all, products, as well as rules ensuring their development, production and application, are objects of standardization. On the basis of this and to ensure the main task of standardization, the decree stipulates that standards and specifications are subject to development on the basis of the highest achievements of Soviet and foreign science, technology and advanced experience and should contain requirements and indicators optimal for the country's economic and social development.

Categories of standard-technical documents establishing requirements for objects of standardization in the USSR have been determined for the first time by an act of a supreme organ of state administration:

state standards (GOST);
sectorial standards (OST);
republic standards (RST);
specifications (TU).

For the formation of a system of standard-technical documents optimal in the structure, composition and level of requirements the decree determines that standards for products should envisage requirements for groups of uniform products and in the necessary cases requirements for specific products.

At the same time, standards for groups of uniform products should determine the basic technical and economic indicators of such products, the efficient composition of their categories (types), requirements for unification and other requirements for the purpose of ensuring the development and output of products corresponding in their indicators to the highest world level or surpassing it. Differentiated periods of putting the envisaged indicators and requirements into effect can be established in standards for groups of uniform products. From this it follows that the values of indicators of the quality of products subject to development corresponding to the long-term world level of technology with differentiated periods of putting them into effect should also be established in such standards along with the attained values of indicators of the quality of produced products. At the same time, periods of putting degrees of quality into effect should be established with due regard for differentiated standard periods of renovation (modernization) of products.

As envisaged by the decree, requirements for specific products (models and brands) ensuring the reflection of long-term requirements of scientific and technical progress and the fulfillment of appropriate standards for groups of uniform products should be established by the standards and specifications for these products.

State standards for groups of uniform products and for specific products are developed in accordance with the decision of the USSR State Committee for Standards and the USSR State Committee for Construction Affairs (for the products list assigned to it).

This provision of the decree will be regulated in the state system of standardization through the establishment of an order of development and management of a list of groups of uniform products and specific products subject to state standardization. This list will be developed by head (leading) ministries (departments) in terms of types of produced products and in coordination with customers approved by the USSR State Committee for Standards and the USSR State Committee for Construction Affairs (for the products list assigned to it). On the basis and as a supplement to state standards sectorial standards and specifications specifying and meeting the requirements of state standards as applied to groupings of products or their specific types forming part of groups of uniform products will be developed for groups of uniform products.

The decree determines that, in cases when the development of state standards for groups of uniform products and for specific products is not envisaged, head (leading) USSR ministries and departments in terms of types of produced products develop appropriate sectorial standards or specifications.

The decree stipulates that republic standards are developed for products of republic and local importance if there are no state and sectorial standards or specifications of head (leading) USSR ministries and departments in terms of types of produced products for the above-mentioned products.

In the absence of state, sectorial and republic standards or specifications of head (leading) USSR ministries and departments in terms of types of produced products, ministries, departments and central organs of cooperative and other public organizations, as envisaged by the decree, can develop specifications for the products of enterprises and organizations subordinate to them, or ensure the production of such products directly on the basis of technical documents approved in accordance with the established procedure.

The production and delivery of products directly according to technical documents are envisaged for cases when the development of standards and specifications for such products are not advisable (part and assembly units, which are components of completed end products and so forth). In these cases products are produced and delivered according to standard samples and technical documents approved in accordance with the established procedure.

The realization of the above-stated principles of development of standards and specifications for products creates the basis for the formation of stocks of standard-technical documents optimal in the structure, composition and level of requirements in all national economic sectors and in the Union republics, which will make it possible to have an optimal stock of standard-technical documents for the entire country.

The inclusion of the work on standardization carried out at enterprises, organizations and institutions in basic types of work is a fundamentally new provision of the decree.

At the same time, the development of standards and specifications for products is an integral part of the work on the production of new (modernized) products. The realization of these provisions will contribute to a rise in the level of scientific research, experimental design and planning work on the development of new (modernized) products, a rise in the scientific and technical level of standards, an accelerated introduction of the achievements of science and technology into production and a solution of key tasks concerning the country's development ensuring the satisfaction of both current and long-term needs of the national economy.

The approval of state standards for products and other objects of standardization obligatory on all ministries, departments, enterprises, organizations and institutions is entrusted to the USSR State Committee for Standards and the USSR State Committee for Construction Affairs (for the products list assigned to it).

At the same time, it has been determined that the USSR State Committee for Standards and the USSR State Committee for Construction Affairs should ensure the consideration of drafts of state standards (with technical and economic substantiations) and draft plans of basic organizational and technical measures for their introduction submitted by ministries and departments, as well as the performance of a state expert examination of the indicated drafts by the forces of scientific research institutes of these committees, within a period of no more than 3 months.

For the purpose of ensuring the realization of the rights of head (leading) ministries and strengthening their role and responsibility in pursuing a unified technical policy with respect to the types of products assigned to them and in raising their technical level and quality, the decree entrusts the approval of sectorial standards for products to head (leading) USSR ministries and departments in terms of the types of produced products. These standards are obligatory on enterprises, organizations and institutions irrespective of their departmental subordination.

The establishment of the procedure of approval of republic standards for products is entrusted to councils of ministers of the Union republics in coordination with the USSR State Committee for Standards. These standards are obligatory on the ministries and departments of a Union republic and all enterprises, organizations and institutions located on the territory of a Union republic irrespective of their departmental subordination.

The approval of specifications for products according to the sectorial principle is entrusted to appropriate ministries, departments and central organs of cooperative and other public organizations in accordance with the procedure established by the USSR State Committee for Standards.

On the basis of this provision specifications for products should be approved by head (leading) ministries and departments, as well as central organs of cooperative and other public organizations, in terms of the types of produced products. This requirement is connected with the fulfillment by methods of standardization of the provision of the decree of the CPSU Central Committee

and the USSR Council of Ministers "On Measures for Acceleration of Scientific and Technical Progress in the National Economy," which requires a practical pursuance by head (leading) ministries (departments) of a unified technical policy concerning a rise in the technical level and quality of the types of products assigned to them on a countrywide scale.

Specifications in accordance with the area of their dissemination are obligatory on enterprises, organizations and institutions producing, delivering (selling), storing, transporting, utilizing (operating) and repairing products.

For the purpose of ensuring a closer coordination of work on standardization with the activity related to the planning of the economic and social development of the USSR, with the development and placement of new (modernized) products in production and with the activity related to price formation, the decree determines that five-year and annual standardization plans are integral parts of plans for the economic and social development of the USSR, the Union republics, ministries, departments, enterprises, organizations and institutions respectively and standards, specifications and prices of new (modernized) products are subject to approval before the beginning of their production and should be put into effect simultaneously.

In accordance with the decree the administration of standardization in the country is entrusted to the USSR State Committee for Standards, which is responsible for the organization, state and optimal development of stanardization and intersectorial unification, for the strengthening of the role of standardization in the acceleration of scientific and technical progress, increase in the efficiency of public production and improvement in the quality of products and for the scientific and technical level and technical and economic substantiation of the state standards approved by it.

The procedure of performance of work on standardization in the USSR is established by the set of acts of the state system of standardization, as well as other acts issued by the USSR State Committee for Standards.

The decree entrusts the USSR State Committee for Construction Affairs with the responsibility for strengthening the role of standardization in the solution of problems of scientific and technical progress in construction and in the construction materials industry and for the scientific and technical level and technical and economic substantiation of the state standards approved by it.

For the first time one legislative government act generalizes the most important obligations of USSR ministries and departments and councils of ministers of the Union republics and their responsibility for the execution of work in the field of standardization. In accordance with the decree USSR ministries (departments) and councils of ministers of the Union republics should ensure the following:

a) inclusion of advanced requirements for the development, production and application of products with due regard for the following in standards and specifications: rise in the level of their unification; efficient utilization and decrease in the expenditure of raw materials, supplies, power, fuel,

spare parts and tools; reduction in labor expenditures; demands of the foreign market; standards and recommendations of international organizations for standardization; environmental protection, labor safety, protection of the population's health and protection against harmful effects (noise, vibration, radio interference and so forth); requirements of technical esthetics and ergonomics, as well as requirements for methods and means of control over the quality of products reflecting the highest achievements of Soviet and foreign science, technology and advanced experience and envisaging solutions optimal for the country's economic and social development.

Standards and specifications for products are subject to coordination with ministries and departments that are customers of products (basic consumers) and other interested organizations (trade-union organs and organs of state supervision), as well as to a scientific-technical and legal expert examination;

b) performance of work on the outstripping standardization of raw materials, supplies, accessories and tools, whose quality has a decisive effect on technical and economic characteristics (including reliability and durability) of machines, instruments, automation equipment and other industrial articles, as well as consumer goods;

c) development of programs for an overall standardization and programs for the unification of products of major national economic significance;

d) increase in the efficiency of planning of work on standardization, development and coordination of drafts of five-year and annual plans for sectorial and republic standardization with the USSR State Committee for Standardization and the USSR State Committee for Construction Affairs respectively, as well as the development of proposals for drafts of five-year and annual plans for state standardization and their presentation to the USSR State Committee for Standards and in the field of construction and the construction materials industry, to the USSR State Committee for Construction Affairs.

Proposals on the standardization of products based on the most important long-term Soviet and foreign achievements of science and technology subject to introduction into the national economy are also submitted to the USSR State Committee for Science and Technology, the USSR Academy of Sciences and the USSR State Committee for Inventions and Discoveries;

e) renewal of existing standards and specifications for products for the purpose of a prompt replacement of obsolete indicators and bringing them in conformity with the needs of the national economy, the population, the country's defense and export;

f) a prompt introduction of standards and specifications at subordinate enterprises, organizations and institutions, providing for this in plans for economic and social development the necessary material, labor and financial resources, as well as the execution of control over the introduction and observance of standards and specifications.

When assignments for the mastering and output of new (modernized) products are established in plans, standards and specifications for these products should be indicated;

g) performance in accordance with the established procedure of work on international standardization for the purpose of generalizing advanced foreign experience in this field and its application in the USSR for raising the technical and economic level and quality of products, as well as their competitiveness.

The responsibility of ministries (departments), councils of ministers of the Union republics, enterprises and organizations and of their managers, as well as of subdivisions (services) of standardization, for work on standardization is established. Thus, the decree openly states that USSR ministries and departments and councils of ministers of the Union republics are responsible for the organization and state of work on standardization and unification in the corresponding sphere of management, for ensuring the optimal level of standardization and unification of products, for the fulfillment of standardization plans, for the scientific and technical level and technical and economic substantiation of the standards and specifications developed and approved by them and for their prompt introduction and strict observance at subordinate enterprises, organizations and institutions.

In accordance with the decree subdivisions (services) of standardization are established in the central apparatus of ministries and departments within the limit of the number of workers of the central apparatus for a direct management of work on standardization in national economic sectors.

Responsibility for the organization and performance of work on standardization at enterprises, organizations and institutions is entrusted directly to their managers, as well as to the appropriate subdivisions (services) of standardization set up in accordance with the established procedure.

For the purpose of enhancing the role of customers of products (basic consumers) in the correspondence of developed new (modernized) products to the highest world level, as envisaged by the decree of the CPSU Central Committee and the USSR Council of Ministers "On Measures for Acceleration of Scientific and Technical Progress in the National Economy," this decree establishes that ministries and departments that are customers of products (basic consumers) are responsible for the correspondence of the initial requirements issued by them and the requirements determined by technical assignments for the development of new (modernized) products to the long-term needs of scientific and technical progress, as well as to the requirements of standards for groups of uniform products.

The system of all-Union and republic head and base organizations for standardization, which has proved its value during preceding years, is retained. These organizations are called upon to carry out the coordination and scientific-technical and organizational-methodological guidance of work on standardization in corresponding national economic sectors. The USSR State Committee for Standards and the USSR State Committee for Construction Affairs (in

the field of construction and the construction materials industry) have the right to approve by representation of USSR ministries and departments all-Union head and base organizations for standardization.

In the Union republics in case of need head and base organizations for standardization are approved in accordance with the procedure established by the Council of Ministers of a Union republic in coordination with the USSR State Committee for Standards.

For the purpose of eliminating an unjustified variety of the same types of products of a similar function, preventing the duplication of standard-technical documents and ensuring their correspondence to existing legislation, the decree affirms the provision that standards, specifications and changes with respect to them, as well as decisions on their cancellation, are subject to a mandatory state registration in organs of the USSR State Committee for Standards.

Standards, specifications and changes with respect to them, which have not undergone state registration, are invalid.

To ensure a stable functioning of the centralized system of information on existing standard-technical documents, a permanent state storage of state, sectorial and republic standards and specifications, standards of the Council for Mutual Economic Assistance, standards and recommendations for the standardization of international organizations and national standards of foreign countries, as well as information on them, is provided by the Central Stock of Standards and Specifications of the USSR State Committee for Standards and its departments in the Union republics.

The decree grants the USSR State Committee for Standards an exclusive right to issue and reissue state standards, standards of the Council for Mutual Economic Assistance and standards and recommendations for standardization of international organizations. The State Committee for Standards is entrusted with duties connected with the provision of interested enterprises and organizations with these documents.

Duties connected with the issue and reissue of sectorial and republic standards and specifications and with the provision of interested enterprises and organizations with them irrespective of departmental subordination are entrusted to the organs approving them.

On the basis of the fact that work on standardization is included in basic types of work carried out at enterprises, organizations and institutions and is an integral part of the work on the development of new (modernized) products it has been established that work on standardization is financed with funds earmarked for the development of science and technology, as well as production.

To ensure statewide interests in the development of high-quality products and a prompt introduction and a strict observance of standards and specifications, as well as to strengthen their role in an improvement in the quality of produced products, the decree stipulates that products produced and sold in the USSR should correspond to the requirements of standards and specifications.

The decree prohibits the development, manufacture, delivery (sale), storage, transportation, utilization (operation) and repair of products, as well as the performance of another activity with a violation of the requirements of standards and specifications.

It should be especially noted that in accordance with the decree managers of enterprises, organizations and institutions and general and chief designers are personally responsible for the scientific and technical level and technical and economic substantiation of developed standards and specifications, for the correspondence of their indicators to the highest achievements of Soviet and foreign science, technology and advanced experience, for a prompt renewal of existing standards and specifications, for the correspondence of developed design, technological and planning documents to the requirements of standards and specifications and for ensuring an optimal level of standardization and unification of developed products.

Officials, who have permitted a violation of standards and specifications, bear responsibility in accordance with existing legislation.

In order to prevent the import of products of a low technical level and quality and of an obsolete assortment into the USSR, as well as to eliminate cases of their technical incompatibility with the parameters of domestic products, together with which they are used, the decree determines that the parameters of products imported into the USSR should be compatible with the parameters established by the standards and specifications in effect in the USSR or the standards of the Council for Mutual Economic Assistance adopted by the USSR.

The rules of application of the standards of the Council for Mutual Economic Assistance in the USSR, as well as the procedure of use of the standards and recommendations for standardization of international organizations in the USSR, are established by the USSR State Committee for Standards.

In accordance with the decree a change has been made in the procedure of application of CEMA standards in the USSR. Now, along with a direct application of CEMA standards as state standards without changes and reformulations in our national economy, in the necessary cases the introduction of the requirements of CEMA standards into state, sectorial and republic standards is now permitted, provided that a full correspondence of the indicators of these standards to the indicators of CEMA standards is ensured. At the same time, state, sectorial and republic standards can envisage higher indicators of the quality of articles as compared with the indicators of CEMA standards (with the retention of requirements for the mutual replaceability and technical compatibility of articles).

The decree abolishes the previously adopted decisions of the USSR Council of Ministers on problems of organization of work on standardization in the USSR since the norms contained in them are reflected in the approved decree. Changes and supplements introduced into the decisions of the USSR Government in connection with this decree have also been approved.

In connection with the adoption by the USSR Government of the decree "On the Organization of Work on Standardization in the USSR" the State Committee for Standards mapped out the necessary measures that would ensure its introduction into practice.

The realization of the new decree of the USSR Council of Ministers will contribute to the strengthening of the role of standardization in the acceleration of scientific and technical progress, introduction of its achievements into production and rise in the technical level and quality of domestic products.

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September 3, 1985